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REMARKS

Claims 1-6, 14-15 and 21-27 are pending. Claims 1-6, 14-15 and 21-23 were rejected as an obviousness-type double patenting. Claims 1-6, 14-15 and 21-23 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1-4 and 14-15 were rejected under 35 U.S.C. § 102(b). Claims 21-23 were rejected under 35 U.S.C. § 102(b)/103(a). Claims 5-6 were rejected under 35 U.S.C. § 103(a).

Rejections Under 35 U.S.C. § 102(b)

Claims 1-3 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by U. S. Patent Number 5,745,627 issued to Arroyo et Al. on April 28, 1998.

Claims 1-3 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by WO99/36829 issued to SUN Microsystems Inc.

Claims 1-4 and 15 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 660082 issued to Andrew A. G.

Claims 1-3 and 14-15 were rejected under 35 U.S.C. §102(b) as being anticipated by EO 752603 issued to W. L. Gore and Associates.

Applicant has avoided these grounds of rejection for the following reasons.

First, applicant's claim 1, as amended, now recites,

"introducing a plurality of voids into a polymeric material, wherein the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material ...."

The cited references do not teach this limitation. Instead, Arroyo discloses a fiber optic core member consisting of a central conductor surrounded by and encased in a cylindrical dielectric member of suitable material, such as polyester foam. Surrounding the assembly of the core member is a jacket of suitable insulating material, such as polyethylene. Optical fibers within the jacket but exterior to a metallic member encasing the central conductor creates voids through which water may flow. The voids contain filamentary water-blocking material that has the property of swelling to several times its original size without being dissolved in water, when exposed to

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water or other moisture, and thereby blocking any water passages created by the voids, as stated in column 2, lines 63-67 to column 3, lines 1-7. However, Arroyo does not disclose any details concerning the size of the voids. Thus, Arroyo is missing the elements "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1.

Second, WO99/36829 teaches a buffer layer of plastic form that surrounds a fiber optic cable core and provides mechanical thermal insulation. However, similar to Arroyo, WO99/36829 does not disclose "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1.

Third, EP 660082 discloses a sensing coil of a fiber optic gyroscope that is submerged in a gel. The fiber has a polymeric buffer coating on it, as stated in column 6, lines 28-31. However, contrary to applicant's claim 1, EP 660082 does not disclose "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1. This is because EP 660082 does not disclose any details concerning the size of the voids. Thus, EP 660082 is missing the elements "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1.

Fourth, EO 752603 discloses a light transmitting fiber core and a buffer composed of a closed cell porous polymer mater that surrounds the light transmitting fiber core. EO 752603 teaches that the buffering protects the optical fiber from severe stresses, as stated on page 2, lines 30-32. However, contrary to applicant's claim 1, EO 752603 does not disclose "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1. This is because EP 752603 teaches that the improved buffer comprises a closed cell porous polymeric material, having a minimum porosity per unit volume of material of 10%, as stated on page 3, lines 13-14. Alternatively, EP 752603 discloses that the buffering may be comprised at least in part by a 50% porous co-extruded polypropylene film, as stated on page 3, lines 18-21. Thus, EP 752603 is missing the elements "the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material", as recited in applicant's claim 1.

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Thus, the clear teaching of Arroyo, WO99/36829, EP 660082 and EO 752603 is that the plurality of voids do not fill up to twenty-five percent of a total volume of the polymeric material.

In view of the foregoing, applicant submits that Arroyo, WO99/36829, EP 660082 and EO 752603 do not describe each and every element of claim 1, and therefore claim 1 is not anticipated by Arroyo, WO99/36829, EP 660082 and EO 752603. Since claims 2-4 and 14-15 depend from allowable claim 1, these claims are also allowable over Arroyo, WO99/36829, EP 660082 and EO 752603.

Rejections Under 35 U.S.C. § 102(b)/103(a) and 35 U.S.C. § 103(a)

Claims 21-23 were rejected under 35 U.S.C. §102(b) as being anticipated by, or, in the alternative under 35 U.S.C. §103(a) as being obvious over EP 660082 issued to Andrew A. G.

Claims 5-6 were rejected under 35 U.S.C. §103(a) as being unpatentable over EP 660082 issued to Andrew A. G. in combination with U. S. Patent Number 5,706,175 issued to Takei on January 6, 1998.

Applicant respectfully traverses these grounds of rejection.

Claims 5-6 and 21-23 depend from Independent claim 1. As noted hereinabove, EP 660082 does not teach or suggest the "introducing a plurality of voids into a polymeric material, wherein the plurality of voids fill up to twenty-five percent of a total volume of the polymeric material ... ", as recited in applicant's independent claim 1. Takei does not teach or suggest the elements either. Thus, claims 21-23 are allowable over EP 660082 under 35 U.S.C. § 102(b)/103(a) and claims 5-6 are allowable over the proposed combination of EP 660082 and Takei under 35 U.S.C. § 103(a).

New Claims

New claims 24-27 have been added. Claims 24-27 provide additional limitations directed to the plurality of voids. No new matter has been added.

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Conclusion

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

In view of the above amendments and remarks, allowance of all claims pending is respectfully requested. If a telephone conference would be of assistance in advancing the prosecution of this application, the Examiner is invited to call applicant's attorney.

Respectfully submitted,



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